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(19) (CA) APPLICATION FOR CANADIAN PATENT (12)

(54) Metallic Data Carrier

(72) Pausch, Rudolf - Germany (Federal Republic of) ;

(71) Same as inventor

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(57) 6 Claims

Notice: This application is as filed and may therefore contain an incomplete specification.



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ABSTRACT

(Not from Translation)

Data carrier made of metal for personal data of a user carrying the data carrier, such as blood group, height, name, birthday, special characteristics and the like, with the data carrier being largely insensitive to high thermal stresses as well as mechanical influences in order to maintain the data which it carries, characterized by its being designed as a spring steel band automatically winding up in the form of a spiral in a housing likewise consisting of a resistant metal, in the manner of a steel tape measure, and capable of being pulled out of a slot in housing, on which band the data (information) is embossed legibly in clear-text or applied by recesses that have the contour of conventional letters and numbers.

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### Specification

The invention relates to a data carrier of metal for personal data of a user carrying the data carrier, such as blood group, height, name, birthday, special characteristics or the like, with the data carrier being largely insensitive to high thermal stresses and mechanical effects in order to retain the data it carries, and is designed as a spring steel band which can automatically wind up in the form of a spiral in a housing likewise consisting of a resistant metal, and can be pulled out of a slot in the housing in the manner of a steel tape measure, on which band the data (information) are legibly embossed in cleartext or produced by recesses, that have the shapes of conventional letters and numbers.

A data carrier of this kind is known from FR 2,655,175 A1.

The known data carrier is accommodated in a flat, round, or square housing which has a height of about 2 mm and a diameter of about 2 cm, with the housing being integrated into a watch or an article of jewelry or sewn to an article of clothing or carried in the purse.

A disadvantage of the known data carrier is that its owner can determine individually where he carries the data carrier, with the result that the latter, for example in an accident situation in which its owner is unconscious, must first be found by persons rendering assistance, which necessarily involves a loss of time. In addition, the data carrier need not necessarily be brought along every time.

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Being a relatively small object, at least when not sewn onto an article of clothing but carried for example "loosely" like a coin, it can be lost relatively easily without the owner noticing.

The goal of the invention is therefore to provide a data carrier of the species recited at the outset integrated into an object of which it can be assumed that it will be brought along by the owner of the data carrier in the largest possible number of normal situations and, in situations involving a high potential danger, will be at a specific location where it is readily accessible.

This goal is achieved according to the invention by virtue of the fact that the housing of the data carrier is designed as the bow of a vehicle ignition key.

By this integration of the data carrier into an object, namely the ignition key of a motor vehicle, without which the vehicle cannot be operated, firstly assurance is provided that the owner of the data carrier, when he is driving, something which from the statistical standpoint is the situation of maximum potential danger, will carry the data carrier with him and it is also ensured that it will be quickly accessible to the trained rescue personnel who know that such a data carrier is integrated into the ignition key of a vehicle in the event of a traffic accident, and otherwise, in other words in an accident situation in which the owner of the data carrier was not himself driving his vehicle, must be sought on the owner's key ring. The data carrier according to the invention has the advantage that it has to be brought along in the statistically most

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significant situations of potential danger and can also be found quickly in case of need.

In order to accommodate important data such as an emergency telephone number, membership number in a social service organization from which important personal data could be called up, height, weight, special diseases, for example diabetes, that require certain precautions when administering first aid, telephone numbers and/or address of next of kin, telephone number of the personal physician, need for chronic medication, and the like on the spring steel band of the data carrier according to the invention, it is sufficient as a rule if this carrier, as provided in the preferred design of the data carrier according to claim 2, with a width of approximately 5 mm and a thickness of 0.1 mm, has a length between 0.5 m and 2 m, whereby a length of about 1 m will generally be sufficient to accommodate the above data on the band. In order for the data carrier to be used not only by the owner described by the data, it is necessary for the data carrier to contain "distinguishing information" such as the birthday, height, and possibly information about special characteristics of its owner in order to ensure that the information that can be obtained from the data carrier also "fits" the person carrying the data carrier.

In one preferred embodiment of the data carrier, the information stored thereon is applied by a laser cutting method in such fashion that the spring steel band has letters and numbers in the form of recesses so that the information can be read very easily when the band is held up to the light. The "cutting out" of the word and number information also has the advantage that, in contrast to

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embossing, no thickness results that would contribute to adversely affecting the ease with which the band can be pulled out and would also result in an increase in the diameter of the band. The radial outer and inner limiting surfaces of the steel band remain smooth, so that even with the largest possible band lengths, with the individual band turns abutting one another directly, the band winding diameter can be kept relatively small.

The housing of the data carrier is advantageously made in the shape of a flat box with a plate-shaped lid that matches the basic shape, said lid fitting externally flush against the jacket wall of the box and being lockable to it either by a locking connection or by screws, with the screws for this purpose being screwable into a threaded piece of the flat-pot-shaped box part that projects radially slightly inward.

The housing parts with this design can be manufactured economically as diecast parts from a metal whose melting point should be as high as possible so that the housing does not melt for example in the case of a fire in the vehicle.

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~~The housing parts with this design can, as provided in claim 8, be manufactured economically from diecast parts from a metal whose melting point should be as high as possible so that the housing does not melt for example in the case of a fire in the vehicle.~~

It is especially advantageous in this regard for a central pin by which the spring steel band is attached at its end inside the housing be located on the removable lid of the housing so that replacement of the steel band and/or the addition of additional data to it is facilitated.

Further details and features of the data carrier according to the invention will follow from the following description of a preferred embodiment with reference to the drawing.

Figure 1 shows a data carrier according to the invention shaped as the bow of an ignition key, in a schematically simplified, enlarged, perspective view;

Figure 2 shows the lid of the housing of the data carrier according to Figure 1, viewed from its interior, on a scale of 1.2:1; and

Figure 3 shows the housing part of the data carrier according to 1 forming the key bow with the lid removed, in a top view on a scale of 1.2:1.

The purpose of the data carrier represented in Figure 1 as a whole by 10 is the storage, as safely as possible, of a plurality of information items that relate to the user of data carrier 10 and knowledge of which, for example in an



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accident suffered by the user, is advantageous for rapid medical assistance to the individual requiring help. Important information of this kind includes in particular the blood group of the user, age, height and weight, information about diseases for which the user needs chronic medication, or because of which contraindications for certain medications could exist and must not be given to the user, as well as information that permits the user to be identified such as name, address, telephone numbers of relatives and also telephone numbers of social service organizations in which data is stored about the user, which could be called up in a short time in order to provide a "picture" of the user that is as complete as possible, especially the largest possible amount of information about his total medical history, prompt knowledge of which is useful both for first aid treatment and for subsequent treatment in a hospital.

The data carrier 10 consists of a recording medium in the form of a spring steel band 11 and a housing that is in the form of a flat box, represented as a whole by 12, that receives this data carrier, said housing receiving the recording medium 11 in the form of a spiral-shaped automatically winding steel measuring tape. At its free end the spring steel band 11 is provided with a stop 13 bent at an angle which prevents spring steel band 11 from being pulled all the way into housing 12 and simultaneously can be used as a grip to pull the recording medium 11 out.

Spring steel band 11 is assumed in the embodiment shown to have a thickness of 0.1 mm, a width of 4 mm, and a pullout length of about 1 m.

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The information relating to the user is stored on recording medium 11 (in cleartext) by virtue of the fact that the letters and numbers required for the purpose are cut out by a laser cutting method as suitably shaped recesses. The narrow ribs 16 that remain between the edges and the sequence of letters and numbers, the "information" 14 and the lengthwise edges 11' and 11" of the band, which lend spring steel band 11 sufficient stability and sufficient elastic restoring force, that makes it possible for it to wind up automatically to pull the band into housing 12, have a width of about 0.6 mm, so that a remaining width of about 2.8 mm remains to accommodate the letter and number characters of the information 14, which is sufficient to make the information easily readable, at least when the band is held up against a bright background.

In the special embodiment shown, housing 12 has the basic shape of an irregular pentagon which however is symmetrical relative to its lengthwise center line 15. Housing 12 consists of the housing part 12' in the form of a flat box and an essentially plate-shaped lid part 12", which are shown in detail in Figures 2 and 3.

In corners 17, to 17, of housing 12, abutting one another and projecting vertically from bottom 18 of the box-shaped housing part 12', jacket wall parts 19, to 19, of the housing jacket, at the corner 17, through which line of symmetry 15 runs, enclose an angle  $\alpha$ , of approximately  $90^\circ$  and at the corners 17, and 17, each adjacent to this corner 17,, with an angle  $\alpha$ , of approximately  $108^\circ$ , which corresponds to the internal angle of the regular pentagon.

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Pull-out slot 21 through which spring steel band 11 can be pulled out of housing 12 is located on the corner 17, of box-shaped housing part 12' at which the two jacket sections 19, and 19, of the housing jacket, leaving slot 21, "abut" one another. The jacket sections 19, and 19, abutting these two jacket wall sections 19, and 10, at corners 17, and 17, are slightly longer so that, as seen in a top view, an approximately "kite-shaped" outside contour of housing 12 results.

On the side of housing 12 that is opposite pullout slot 21, its box-shaped housing part 12' has an extension block 22 that is square when seen in a top view in which the blade 23 of an ignition key is permanently mounted, whose bow is formed by data carrier 10. This design of data carrier 10 ensures that the user carries data carrier 10 with him when he drives his vehicle.

In order to ensure this, it is also possible to integrate data carrier 19 into the handle of a shift lever of the vehicle or into the hub of the steering wheel.

In the embodiment shown, lid 12" is designed as a flat plate whose marginal edges 24, to 24,, with the housing 12 in the assembled state, fit flush with the outer limiting surfaces of jacket wall sections 19, to 19, of the box-shaped housing part 12' with lid 12" fitting tightly against the free end faces of jacket wall sections 19, to 19, of the box-shaped housing part 12' and which forms a lateral limit to pullout slot 21. To secure lid 12" to the box-shaped housing part 12' screws are provided, projecting through openings 26 in lid part 12" and with their heads sinkable into these openings, said screws being screwable into threads that are

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provided on threaded blocks 27 that are located on the insides of the longer jacket wall sections 19, and 19..

A central pin 28, to which the one (inner) end 29 of spring steel band 11, projecting through a radial slot 31 of pin 29, is attached to the housing, in the embodiment shown is located on lid 12" of housing 12, so that when lid 12" is removed from box-shaped housing part 12', spring steel band 11 can also be removed from housing 12.

Central axis 32 of pin 28 runs in the embodiment shown through the intersection of lengthwise center line 15 with the connecting line of corners 17, and 17,, from which the jacket wall sections 19, and 19, pointing toward pullout slot 21 depart. In addition, lid part 12" is provided with a counterbearing pin 33 located at a radial distance from central pin 28, on which pin 33 the pullout side end of spring steel band 11 is radially supportable, thus preventing the spring steel band from unrolling when lid part 12" is removed.

Of course housing 12, in contrast to the special embodiment explained, could also have a basic shape that was a higher polygon or even circular, which would be advantageous in particular when using the data carrier in the motor vehicle area.

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Claims

1. Data carrier (10) made of metal, for personal data of a user carrying the data carrier, such as blood group, height, name, birthday, special characteristics and the like, with the data carrier being largely insensitive to high thermal stresses as well as mechanical influences in order to maintain the data which it carries, and designed as a spring steel band (11) that can be automatically wound up in the form of a spiral in a housing (12) likewise consisting of a resistant metal, and can be pulled out of a slot (21) in housing (12) in the manner of a steel tape measure, on which band the data (information) (14) is embossed legibly in cleartext or applied by recesses that have the contour of conventional letters and numbers, characterized in that housing (12) is designed as the bow of a vehicle ignition key.
2. Data carrier according to Claim 1 characterized in that spring steel band (11) has a length between 0.5 m and 2 m, preferably a length of about 1 m, a width between 3 mm and 5 mm, preferably a width of 4 mm, and a thickness between 0.08 and 0.12 mm, preferably a thickness of 0.1 mm.
3. Data carrier according to one of Claim 1 or Claim 2 characterized in that the letters and numbers of which information (14) is composed are cut out by a laser cutting method from spring steel band (11).
4. Data carrier according to one of Claims 1 to 3 characterized in that its housing (12) comprises a

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housing part (12') in the form of a flat box and a lid part (12") in the form of a flat plate, said lid part being fastened releasably to box part (12') by a latching or screw connection.

5. Data carrier according to Claim 4 characterized in the housing parts (12' and 12") of data carrier (10) are made as diecast metal parts.
6. Data carrier according to Claim 4 or 5 characterized in that a central pin (28), to which the inner end 29 of spring steel band (11) is releasably attached, whereby spring steel band (11) surrounds pin (28) in a form of a spiral, is mounted on lid (12") of housing (12).

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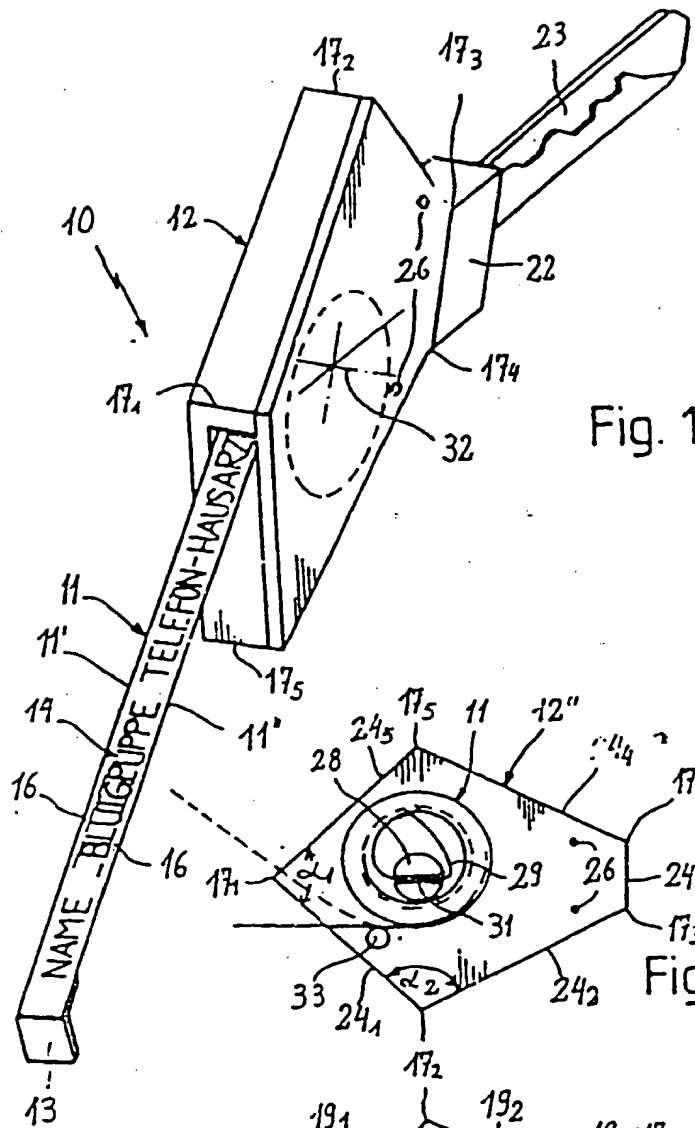


Fig. 1

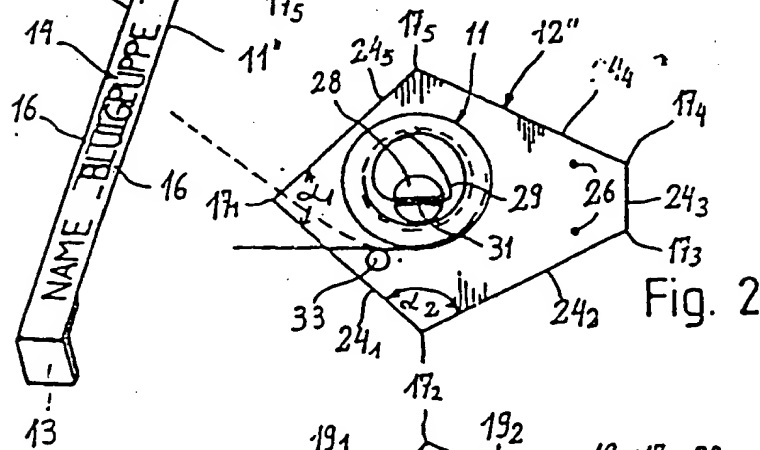


Fig. 2

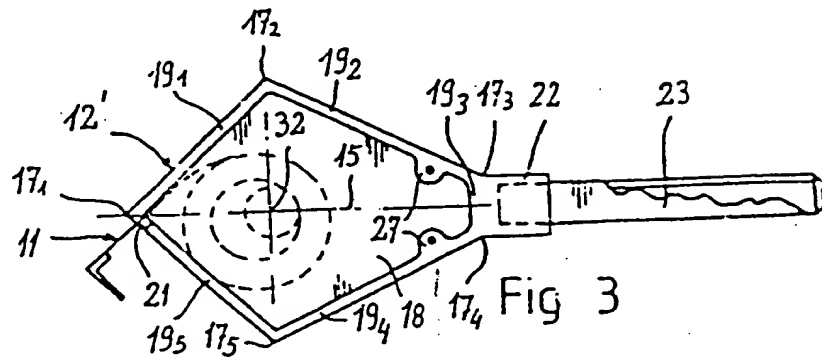


Fig. 3